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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,013	05/17/2005	Kyoung-Ju Shin	AB-1383 US	4501
32605	7590	09/12/2006	EXAMINER	
MACPHERSON KWOK CHEN & HEID LLP 1762 TECHNOLOGY DRIVE, SUITE 226 SAN JOSE, CA 95110			DUONG, TAI V	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/510,013	SHIN ET AL.	
	Examiner	Art Unit	
	Tai Duong	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06/21/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15, 19 and 20 is/are allowed.
- 6) ☒ Claim(s) 16-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The terminal disclaimer filed on 06/21/2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Patent Number 6,995,394 and Application Number 10/793,860 has been reviewed and is accepted. The terminal disclaimer has been recorded.

The objection to the specification and the rejection under 35 USC 112 are withdrawn in view of the amendments to the specification and the claim, and Applicant's remarks.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 17, the recited feature "the cutouts" lacks antecedent basis. In claim 18, it is unclear whether the connecting *members* and the connection portion of claim 16 are different elements or the same.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (US 6,407,791) in view of Choi (US 6,717,631).

Suzuki et al disclose in Figs. 37-43 a method of manufacturing a thin film transistor array panel comprising: forming a gate wire 55 and a storage electrode wire 72; depositing a gate insulating layer 61, an amorphous silicon layer 64, and a metal conductive layer (chromium film); patterning the amorphous silicon layer and the metal conductive layer to form a data wire 56, a direction control electrode 73, and a channel portion 54 of a thin film transistor; forming a passivation layer 65 on the channel portion; and forming a pixel electrode 71 and a connecting portion 176 on the passivation layer wherein the direction control electrode 73 overlaps the cutouts 74 of the pixel electrode at least in part (col. 26, line 28 – col. 28, line 44). Thus, the only difference between the method of Suzuki et al and that of the instant claims is the (ohmic) contact layer. However, Choi discloses in Figs. 3B-C that it is well known to form an (ohmic) contact layer 54 for reducing the contact resistance between the source/drain electrodes and the active layer (col. 2, lines 57-65). Thus, it would have been obvious to a person of ordinary skill in the art to form an (ohmic) contact layer in the method of Suzuki et al for reducing the contact resistance between the source/drain electrodes and the active layer, as disclosed by Choi.

Claim 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Claim 18 is over the prior art of record. None of the prior art discloses or suggests a method having steps recited in claim 16 *in combination* with the features " forming a plurality of connecting members on the passivation layer, forming a plurality of source electrodes electrically connected to

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storage electrode wire; and connecting the second source electrodes and the storage electrode wire through contact holes provided at the passivation layer and the gate insulating layer”

Claims 1 and 2 are allowed over the prior art of record. None of the prior art discloses or suggests a thin film transistor array panel comprising second signal lines intersecting first and third signal lines; a plurality of pixel electrodes provided on respective pixel areas defined by the intersections of the first and the second signal lines, each pixel electrode having a cutout; a plurality of direction control electrodes provided on the respective pixel areas defined by the intersections of the first and the second signal lines; a plurality of first thin film transistors, each first thin film transistor connected to one of the first signal lines, one of the second signal lines, and one of the pixel electrodes; and a plurality of second thin film transistors, each second thin film transistor connected to one of the first signal lines, one of the third signal lines, and one of the direction control electrodes. Claim 19 is also allowed since it depends on the allowed claim 1.

Claims 3-15 are allowed for the same reasons set forth in the last Office Action. Claim 20 is also allowed since it depends on the allowed claim 9.

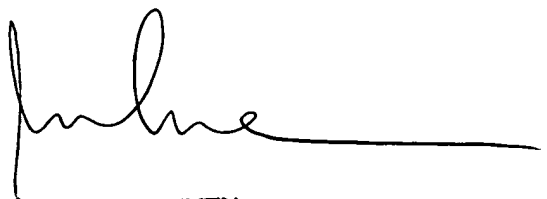
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



DUNG T. NGUYEN
PRIMARY EXAMINER



TVD

09/06